

REMARKS

Applicant appreciates Examiner Wilczewski's time on February 19, 1998 in discussing the above-identified matter. During the discussions, it was noted that the Supplemental Amendment filed November 12, 1996 was not entered by the Patent Office prior to examination and issuance of the outstanding Office Action. Furthermore, it was noted that while applicant's request for filing of the present application requested that the Supplemental Amendment filed November 12, 1996 be entered in this application, it did not specifically request that the earlier After Final Amendment filed on September 17, 1996 be entered and thus, apparently, only the September 17th amendment was entered prior to issuance of the present Office Action. Therefore, it was agreed that applicant would resubmit the amendments contained in the Supplemental Amendment filed November 12, 1996 for consideration by the Examiner and that if these amendments were not sufficient to place the application in condition for allowance, that a second, non-final Office Action would be issued in this case. Of course, if the Examiner has any questions in this regard, the undersigned will be glad to assist in any way possible. In view, of the above, the following remarks are taken from the Supplemental Amendment filed November 12, 1996 and are resubmitted herewith for consideration by the Examiner.

This Amendment is a further response to the Official Action mailed May 14, 1996 (Paper No. 9). The pending claims are amended to increase their clarity, and new claims 55-72 are added for examination on the merits.

In response to the Examiner's suggestion in the Official Action, all of the claims now directly recite a laser light generating means for generating a laser having a beam with a cross sectional width greater than its height. This

feature is not found in any of the cited references, and patentably distinguishes the pending claims from the prior art.

The courtesy extended by Examiner Wilczewski in the personal interview of October 28, 1996 is noted with appreciation. In the interview, applicants presented the above claim amendments as a proposal for discussion. The amended claims recite laser light generating means for generating a laser light, wherein a cross section of the laser light perpendicular to the length of the beam has a width and a height, with the width greater than the height. As examples, the beam may be rectangular or linear in configuration. Although a conventional square form laser light irradiation technique may work when irradiating a square form laser light to a semiconductor in air, a large ridge is produced on a surface of the semiconductor. Contrary to this, the present invention irradiates a rectangular or linear laser light to a semiconductor in an atmosphere comprising oxygen or nitrogen to passivate a surface of the semiconductor and to form silicon oxide or silicon nitride on the surface of the semiconductor, and therefore any ridge on the surface of the semiconductor is extremely small. The amended claims also recite that this beam is used to crystallize a semiconductor, to form a silicon oxide layer, and/or to form a silicon nitride layer.

The Examiner was provided with a copy of U.S. Patent 5,561,081 which recently issued based on related application Serial No. 08/190,846. Applicants informed the Examiner that a divisional application related to the '081 patent has also been filed (Serial No. 08/650,864 filed May 20, 1996, attorney docket 0756-1517). The '081 patent discloses the use of a laser with a beam cross section having a width greater than its height for use in activating semiconductor impurities. The claims in the present application are

distinguished from the claims of the '081 patent by their recitations that the beam is used to crystallize a semiconductor, to form a silicon oxide layer, and/or to form a silicon nitride layer.

The Examiner was also informed that a divisional application of the present application is pending (Serial No. 08/474,675 filed June 7, 1995, attorney docket 0756-1352).

Applicants request reconsideration of the pending rejections in view of the above amendments. Applicants believe that this case is in good condition for allowance, and a Notice of Allowance is earnestly solicited. If a further telephone or personal conference would be helpful, the Examiner is invited to call the undersigned, who will cooperate to advance prosecution.

Respectfully submitted,



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